

# The evolution of chlor-vinyl balances

**APIC 2025 (PVC committee) – Thailand**

# | Agenda

- Argus PVC and chlor-alkali services
- Chlor-vinyl and feedstock prices
- Regional PVC market breakdowns
- PVC capacities and trade restrictions
- Concluding thoughts

# Full suite of Argus chlor-alkali and vinyl products

## Argus Chlor-Alkali Outlook

19 March 2025



Click here to download the price dataset in Excel

### Argus Chlor-Alkali Outlook

## Argus Chlor-Alkali Analytics

2024 2H



Click here to download the chlorine balances dataset in Excel

Click here to download the caustic soda balances dataset in Excel

Click here to download the capacities dataset

### Argus Chlor-Alkali Analytics

## Argus Chlor-Alkali and Derivatives

Monthly global prices and analysis

Issue 25-9 | February 2025

### HIGHLIGHTS

**Americas**

- US Gulf coast monthly contract assessed \$5/dst lower
- Trade, indications raise caustic soda export prices
- Production outages do not disrupt chlorine supply

**Europe**

- NWE downward price pressure eases
- Stoppages in Poland, Iberia add to reducing supply length
- Italian market braces for supply tightness
- Tight seaborne availability pushes up prices

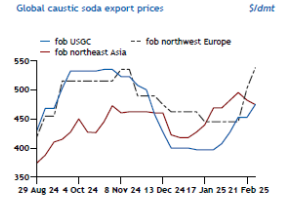
**Asia Pacific**

- Asian export prices settled firmer
- Fewer traders are taking long positions
- Buying support slowed
- Chlorine netback remained negative

### MARKET PRICES

Key prices	Units	Timing	Low	High	▲
<b>Americas</b>					
Caustic soda fob USGC domestic contract	\$/dst	Feb 25	600	625	-5.0
Caustic soda fob USGC month export	\$/dst	Feb 25	410	500	-55.0
Caustic soda Brazil contract	\$/dst	Feb 25	610	625	-175.0
Caustic soda import cfr Brazil	\$/dst	Feb 25	560	640	-32.5
Potassium hydroxide Midwest ex-works	¢/lb	Feb 25	44.0	47.0	no
Potassium hydroxide East coast ex-works	¢/lb	Feb 25	40	45	no
PVC pipe del East of Rockies benchmark	\$/ft	Feb 25	1,312	1,444	no
<b>Europe</b>					
Caustic soda fd northwest Europe contract	€/dst	Q1 2025	580	600	no
Caustic soda export Europe month range	\$/dst	Feb 25	430	545	-35.0
Caustic soda import cfr Med and Black Sea month range	\$/dst	Feb 25	530	650	-35.0
Solid caustic soda fd Northwest Europe contract	€/t	Feb 25	900	1,075	no
Potassium hydroxide fd Benelux contract	€/dst	Q1 2025	1,100	1,650	no
Potassium hydroxide fd Germany contract	€/dst	Q1 2025	1,000	1,540	no
PVC pipe* fd northwest Europe contract	€/t	Feb 25	1,148.5	na	no
<b>Middle East</b>					
Caustic soda export fob Middle East ports	\$/dst	Feb 25	440	450	-25.0
<b>Asia-Pacific</b>					
Caustic soda export fob northeast Asia month range	\$/dst	Feb 25	470	520	+45.0
Caustic soda import cfr southeast Asia month range	\$/dst	Feb 25	500	550	-23.5
Caustic soda Stpc ex-factory China month range	¥/dst	Feb 25	3,160	3,300	-210.0
Potassium hydroxide cfr Asia	\$/t	Feb 25	840	870	no

Global caustic soda export prices \$/dst



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Asia Pacific 8

\*contract monitor

### Argus Chlor-Alkali Weekly

## Argus PVC and Vinyls

Formerly Argus Global Polyvinyl Chloride

Global EDC, VCM, PVC prices and market analysis

Issue 25-14 | Friday 21 March 2025

### HIGHLIGHTS

**EDC and VCM**

- US activity remains muted

**US**

- Export prices slip even as availability tightens

**Latin America**

- Import prices decline on oversupply

**Europe**

- Producers look to regain margins in March

**Turkey**

- Europe raises prices

**Middle East**

- Demand remains low during Ramadan

**China**

- Prices hold steady despite tightening supply

**South Asia**

- Import prices see further erosion

**Southeast Asia**

- Supply issues emerge in Indonesia

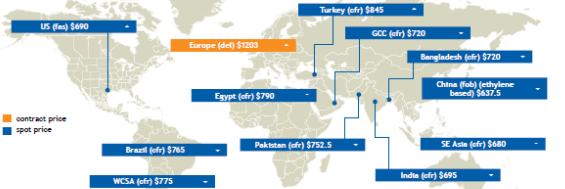
### MARKET PRICES

Contract prices	Timing	Contract price	Monthly
<b>US</b>			
S-PVC pipe del east of Rockies	Feb	1312	▲ +44.00
<b>Europe</b>			
S-PVC pipe del NWE	Feb	1203	▲ +37.00
S-PVC pipe del S Europe	Feb	1237	▲ +40.00
S-PVC pipe del CEE	Feb	1201	▲ +40.00
E-PVC homopolymer del NWE	Feb	1484	▲ +31.00

The monthly Δ (delta) is the assessed change in price from the previous month

Spot prices	Product and basis	Price	Weekly ▲
<b>US</b>			
S-PVC pipe Houston fax bagged		670-690	▲ -5.00
E-PVC homopolymer cfr US east coast		1,279-1,364	▲ 0.00
<b>Latin America</b>			
S-PVC pipe, cfr, Brazil (US-Origin)		765	▲ -10.00
S-PVC pipe, cfr, WCSA (US-Origin)		775	▲ -5.00
<b>Europe</b>			
S-PVC pipe import price of Europe		915	-15.00
<b>Turkey, Egypt and Middle East</b>			
S-PVC pipe cfr Turkey (Europe-origin)		830-860	▲ -10.00
S-PVC K70 cfr Turkey (Europe-origin)		860-890	▲ -10.00
S-PVC pipe cfr Turkey (US-origin)		730-750	▲ 0.00
S-PVC pipe cfr Egypt (Europe-origin)		780-800	▲ 0.00
S-PVC pipe cfr GCC		690-750	▲ -5.00
<b>Asia-Pacific</b>			
S-PVC pipe fob China (ethylene-based)		630-645	▲ -2.50
S-PVC pipe fob China (barbide-based)		610-625	▲ -2.50
S-PVC pipe cfr China		660-700	▲ -12.50
S-PVC pipe cfr India		690-700	▲ -20.00
E-PVC homopolymer cfr India		920-930	▲ -10.00
S-PVC pipe cfr Pakistan		735-770	▲ 32.50
S-PVC pipe cfr Bangladesh		700-740	▲ -5.00
S-PVC pipe cfr SE Asia		660-700	▲ 0.00

### GLOBAL S-PVC SNAPSHOT



### Argus PVC and Vinyls Weekly

# Argus PVC and Vinyls price report

- Weekly PDF price report
- Argus Market Workspaces – curated by reporters and editors
- Online price, trade data platforms
- Global market content:
  - Oil feedstocks [crude, naphtha, ethylene]
  - Energy [coal, electricity, gas]
  - Vinyls [EDC, VCM, suspension PVC, emulsion PVC]
  - Polymer freight rates
  - EDC, VCM, PVC production updates



Argus PVC and Vinyls
Issue 25-14 | Friday 21 March 2025

### CAUSTIC SODA, EDC, VCM

deliveries, but buying intentions below 5500/t cfr have not been concluded yet. The spot market is equally lengthy on VCM, owing to limited PVC demand across Asia-Pacific, but upcoming maintenance schedules in Taiwan, south Korea and Japan from April onwards could potentially cushion further price falls in the coming months.

In China, EDC supply from the US and south Korea is expected to tighten in the coming months as participants expect suppliers here to cater more towards potential additional demand from the Middle East, following the start of chlor-alkali and EDC maintenance in the region. Domestic producers in east China reduced their price offers further to 1,970-2,000 yuan/t, down by 10-40/t from the previous week following weakening downstream demand. On VCM, one deal for a Japanese origin cargo was concluded as a Chinese PVC producer at 5505/t cfr China, with the PVC producer attributing the deal to upcoming maintenance at their chlor-alkali unit in April. Domestic ex-tank VCM prices were steady at 19,300-4,550/t this week.

In southeast Asia, market participants continue to express their interest in delaying EDC and VCM spot discussions.

#### PVC PRICING ANALYSIS

**US**  
US suspension-grade polyvinyl chloride (S-PVC) contract discussions are progressing for March as producers and buyers debate whether market dynamics support a rollover or a price increase. S-PVC export prices ranged from \$650-\$700/t for Houston.

Several producers are under planned maintenance at the end of March, while others are not participating as intensely in the export market compared to previous months. Producers said domestic demand is currently strong enough for them to focus more exclusively on their North American customer base and avoid chasing falling export prices.

Some producers also said the maintenance and consistent consumption were tightening internal inventory to the point where operating rates would need to ramp up soon in order to support spring building season demand while rebuilding inventory for hurricane season.

Producers have been in favor of some form of domestic price increase for March, but buyers have not reported the same degree of demand as producers. Several buyers are right-sizing inventory after downstream customers did not work through orders as quickly as expected.

Many buyers are simply ordering to satisfy current demand levels, operating month-to-month with so much un-

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Export prices slip even as availability tightens

**Latin America**  
Import prices decline on oversupply

**Europe**  
Producers look to regain margins in March

**Turkey**  
Europe raises prices

**Middle East**  
Demand remains low during Ramadan

**China**  
Prices hold steady despite tightening supply

**South Asia**  
Import prices see further erosion

**Southeast Asia**  
Supply issues emerge in Indonesia

#### MARKET PRICES

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S-PVC pipe del NWE	Feb	1200	+37.00
S-PVC pipe del Europe	Feb	1227	+46.00
S-PVC pipe del CEE	Feb	1201	+40.00
S-PVC homopolymer del NWE	Feb	1464	+32.00
The monthly % refers to the contract change in price from the previous month.			
Spot prices			
Product and basis	Price	Weekly %	
US			
S-PVC pipe Houston fac bagged	670-690	+5.00	
E-PVC homopolymer cfr US east coast	1,279-1,364	-0.00	
Latin America			
S-PVC pipe cfr Brazil (US-Origin)	765	+0.00	
S-PVC pipe cfr Mexico (US-Origin)	773	+0.00	
Europe			
S-PVC pipe import price of Europe	915	+0.00	
Turkey, Egypt and Middle East			
S-PVC pipe cfr Turkey (Europe-origin)	810-840	+10.00	
S-PVC 175 cfr Turkey (Europe-origin)	860-890	+10.00	
S-PVC pipe cfr Turkey (C-Origin)	730-750	-0.00	
S-PVC pipe cfr Egypt (Europe-origin)	780-800	-0.00	
S-PVC pipe cfr GCC	690-700	-0.00	
South Asia			
S-PVC pipe cfr India (ethylene-based)	610-645	+2.00	
S-PVC pipe cfr India (ethylene-based)	610-625	+2.50	
S-PVC pipe cfr India	660-700	+2.50	
S-PVC pipe cfr India	690-700	+0.00	
E-PVC homopolymer cfr India	810-860	+0.00	
S-PVC pipe cfr Pakistan	730-770	+2.50	
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#### GLOBAL S-PVC SNAPSHOT

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#### My prices

Contract	Unit	Price	Change	Timing
North Sea Dated - London close	USD/bbl	93.420	-2.980	22 Aug 22
PVC pipe import price cfr Europe	Euro/t	1,137.500	-37.500	19 Aug 22
PVC paste del NWE contract marker EUR/t month 1	Euro/t	1,975.0	-	19 Aug 22
PVC paste del NWE contract marker USD/t month 1	USD/t	1,990.0	-	19 Aug 22
PVC pipe del central eastern Europe contract marker EUR/t month 1	Euro/t	1,880.0	-	19 Aug 22
PVC pipe del central eastern Europe contract marker USD/t month 1	USD/t	1,894.0	-	19 Aug 22
PVC pipe del central eastern Europe Argus delta EUR/t month 1	Euro/t	-60.0	-	19 Aug 22
PVC pipe del southern Europe contract marker EUR/t month 1	Euro/t	1,905.0	-	19 Aug 22
PVC pipe del southern Europe contract marker USD/t month 1	USD/t	1,920.0	-	19 Aug 22
PVC pipe del southern Europe Argus delta EUR/t month 1	Euro/t	-50.0	-	19 Aug 22
PVC pipe del NWE contract marker EUR/t month 1	Euro/t	1,860.0	-	19 Aug 22
PVC pipe del NWE contract marker USD/t month 1	USD/t	1,874.0	-	19 Aug 22

#### News & analysis

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#### My charts

Select chart: Global PVC

# Chlor-vinyl and feedstock prices

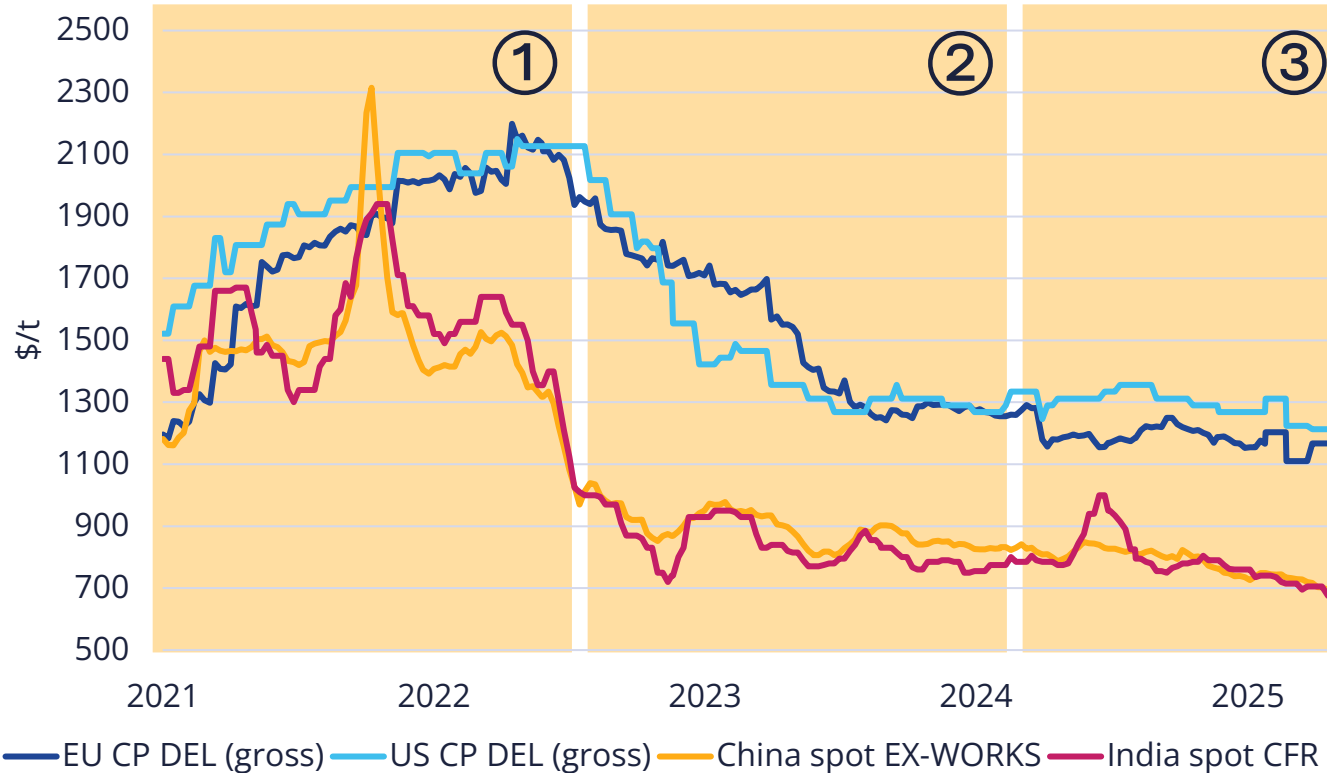
Is the relationship fading?



# How have PVC prices evolved over the years?

Source:  
Argus PVC and Vinyls

## Global PVC price comparison



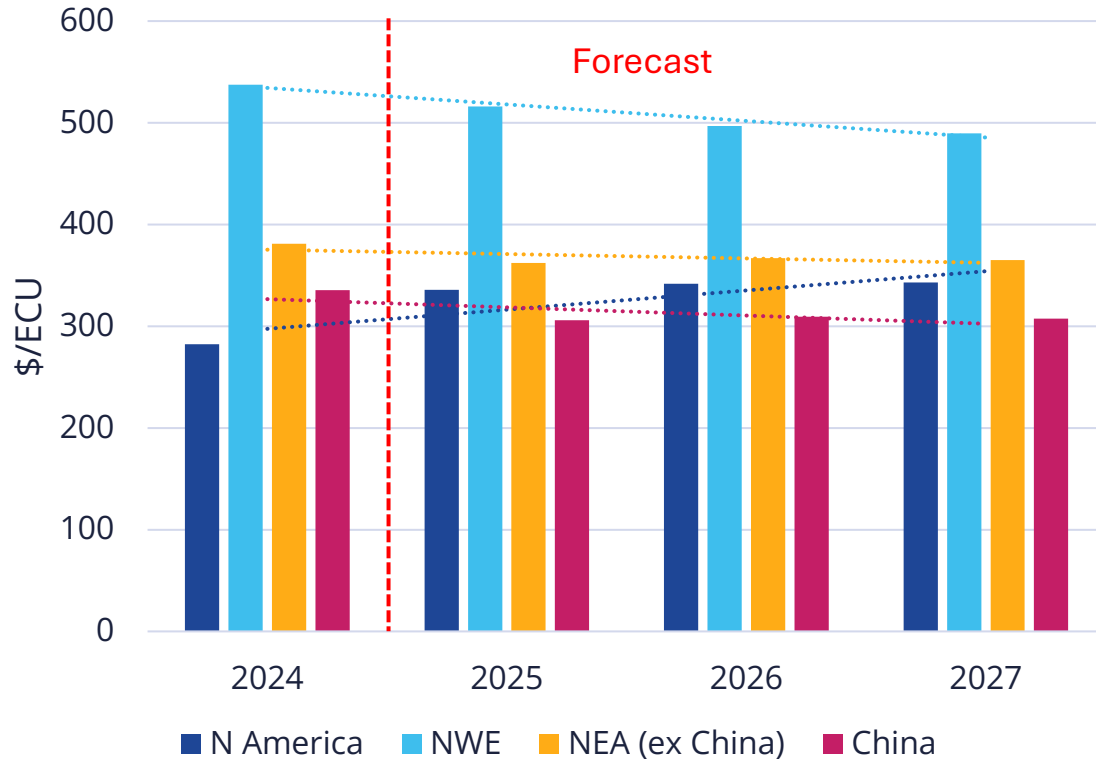
① Supply tightens in both chlorine and caustic soda markets, globally.

② Chlorine and PVC demand lowers across the globe, except for some demand hot-spots such as India.

③ PVC cost structures remain relatively unchanged, while new global PVC capacities are not met with equal demand growth.

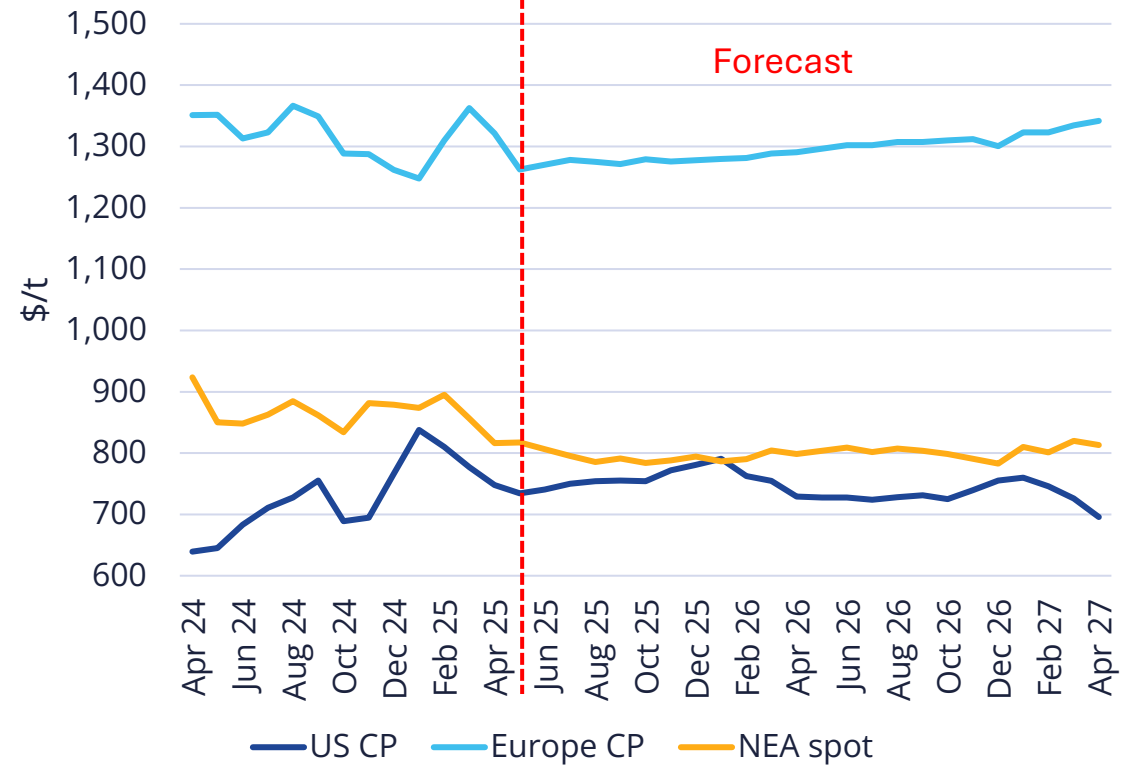
# ECU and ethylene

## ECU cash costs



**Source:**  
Argus Chlor-Alkali Outlook

## Ethylene prices



**Source:**  
Argus Olefins Outlook

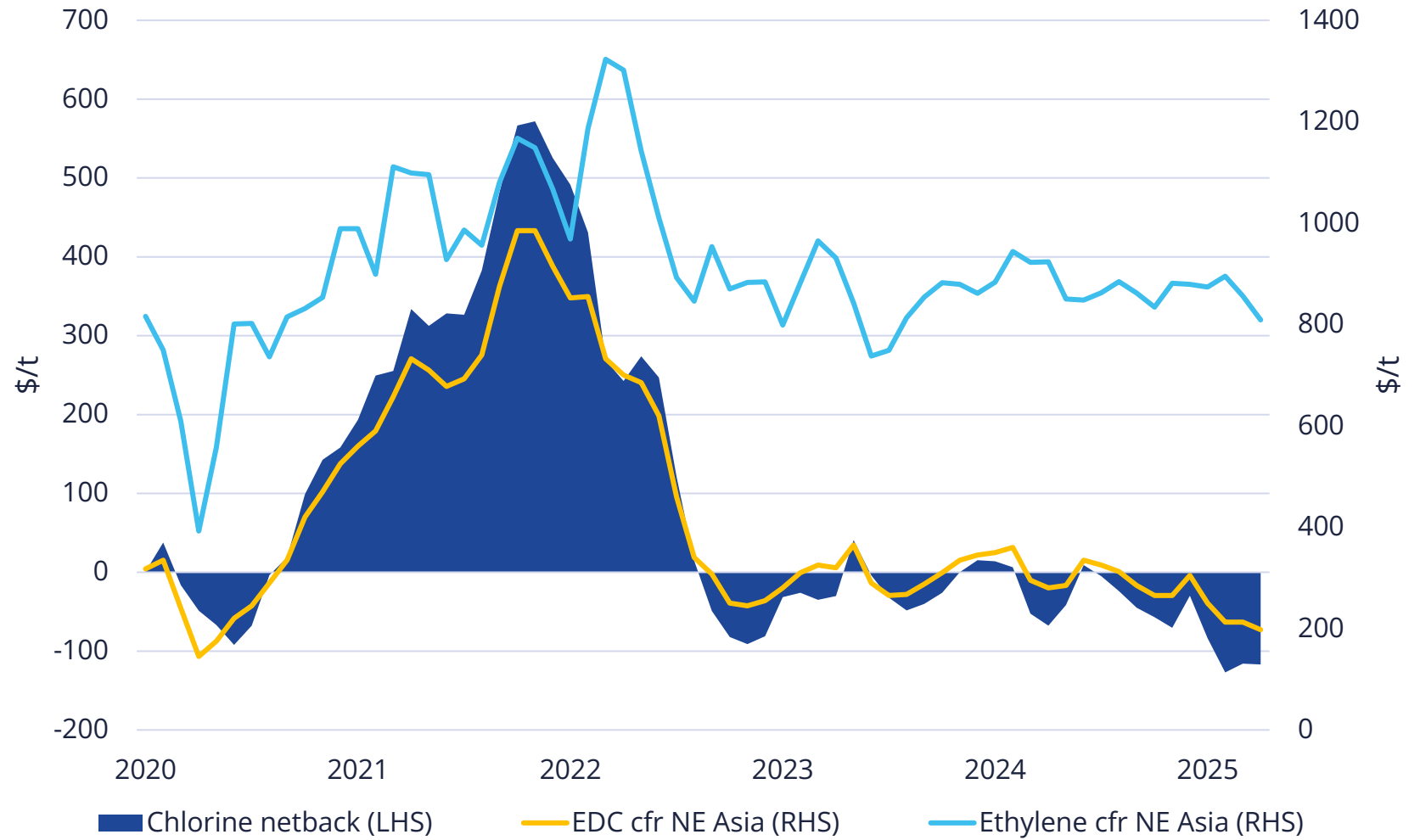


# EDC

- Chlorine netback = calculated chlorine margin based on current EDC price and ethylene cost.
- Reflects weakness in chlorine since late 2023.
- New EDC capacities to lengthen spot supply availability, maintaining chlorine netback in negative territory.

**Source:**  
Argus PVC and Vinyls

## NE Asia EDC costs

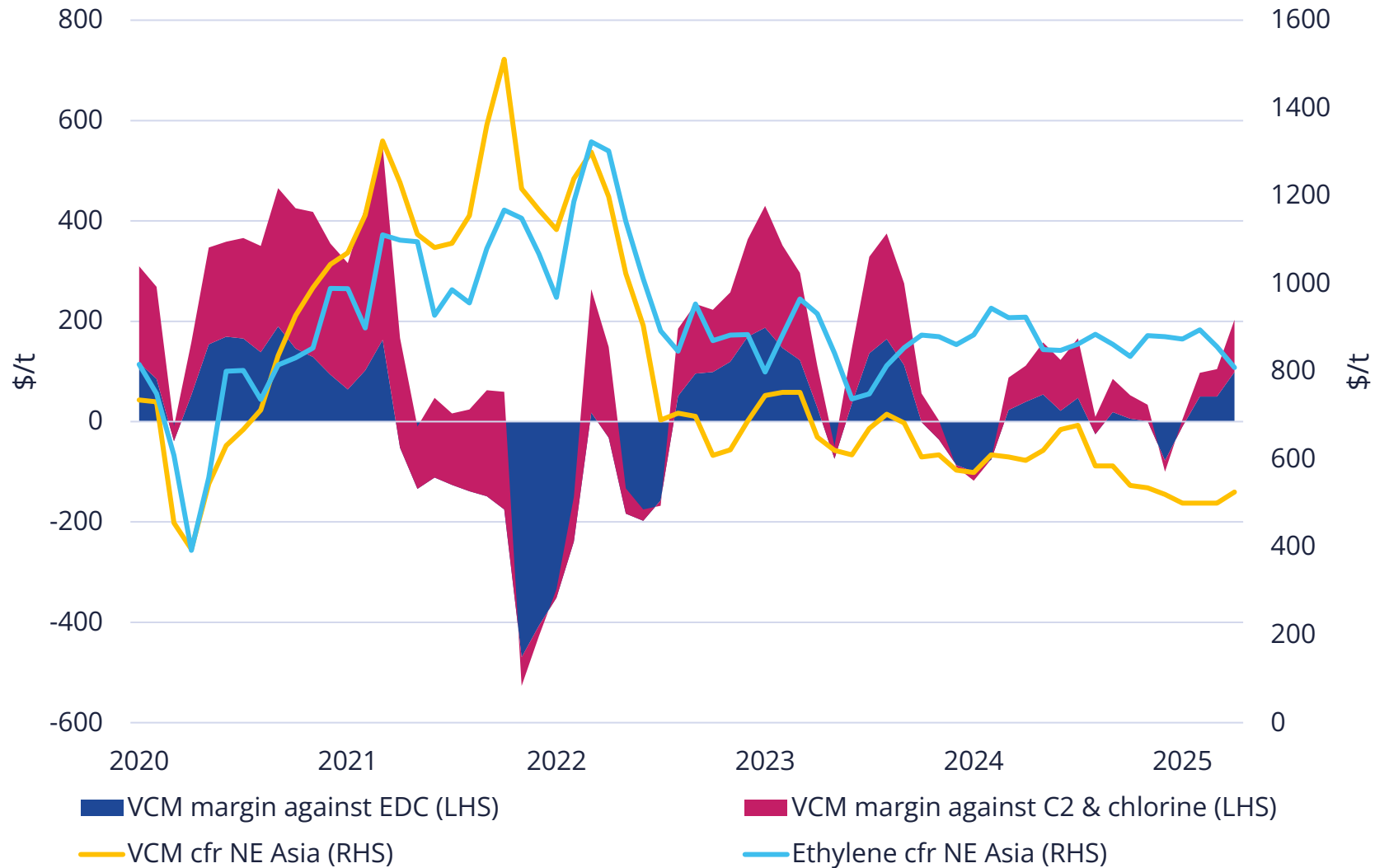


# VCM

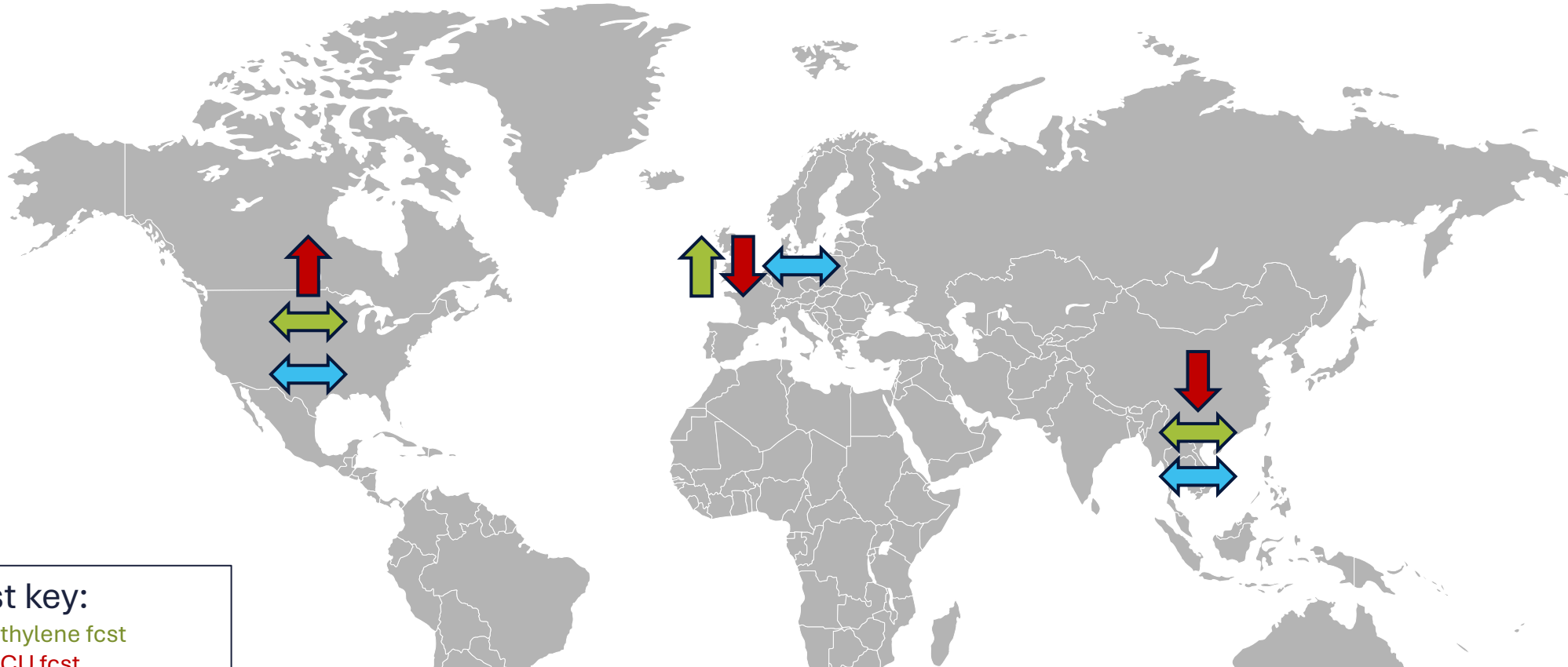
- More volatile margins than EDC, but difficult to transport and with fewer outlets outside of PVC.
- Net global market will remain short because of limited non-integrated (to PVC) expansions.

**Source:**  
Argus PVC and Vinyls

## NE Asia VCM margins



# Feedstock competitiveness per key market



Cost key:  
- Ethylene fcst  
- ECU fcst  
- EDC & VCM fcst

From this, we can make three assumptions going forward:

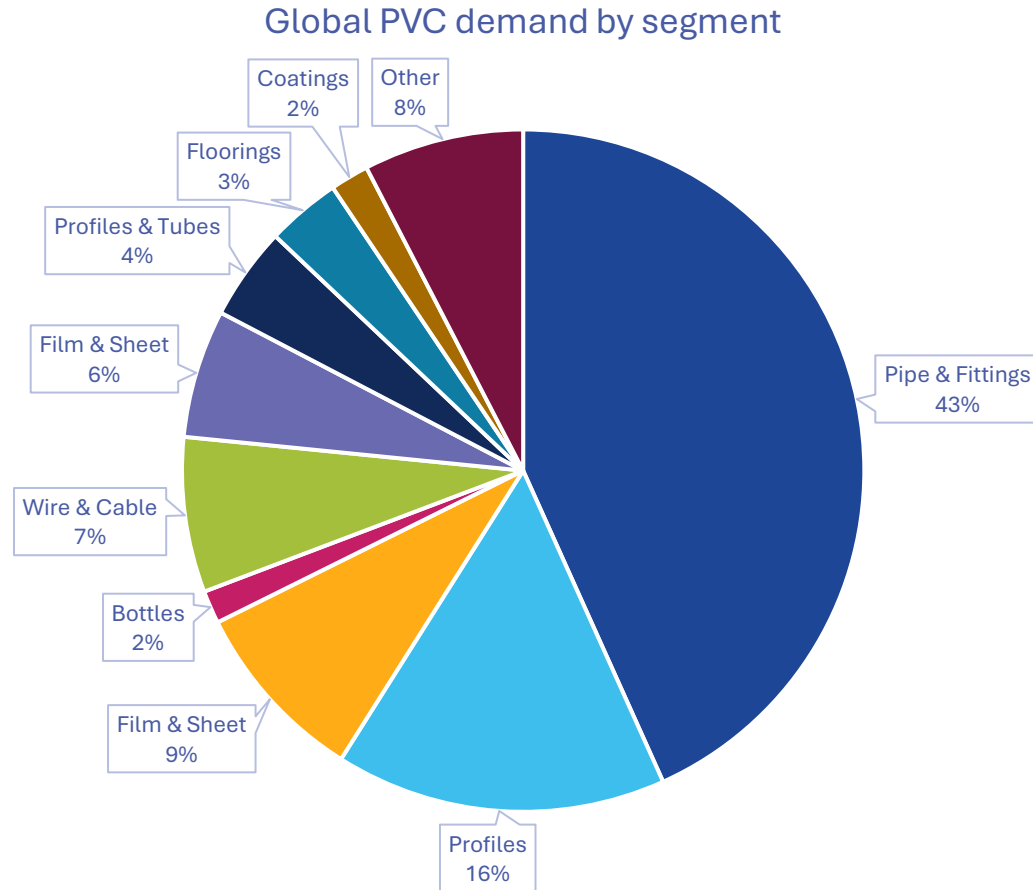
- Ethylene and chlorine costs will remain the key price drivers for PVC.
- Some non-integrated PVC producers will look to integrate upstream to reduce their dependency on EDC and VCM.
- EDC and VCM producers will find it easier to control margins if they have PVC integration.

# Regional PVC market breakdowns

How are global markets  
currently being defined?



# Global PVC consuming segments



- **Rigid grade PVC consumption: 69%**

- Pipes & fittings
- Profiles
- Film and sheet
- Bottles

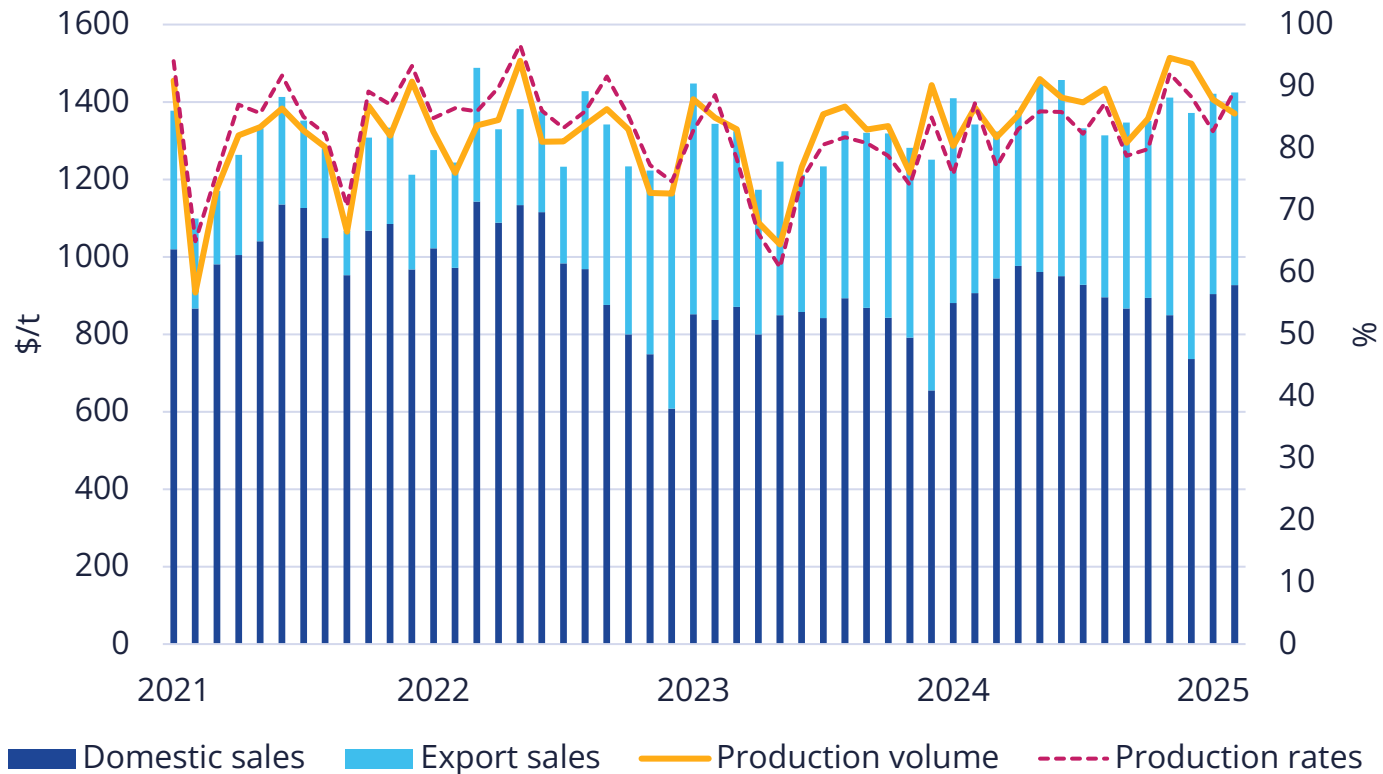
- **Flexible grade PVC consumption: 24%**

- Wire & Cable
- Film and sheet
- Profiles and Tubes
- Flooring
- Coatings
- Other niche applications

Majority of demand comes from construction and big-ticket items such as automotive, white-goods and medical instruments.

# US PVC capacity expansions are leading to surplus export availability

## US PVC production vs sales



### Domestic sales

Domestic US PVC demand set to grow by 2-5% in 2025. Current year-to-date demand is 3% higher.

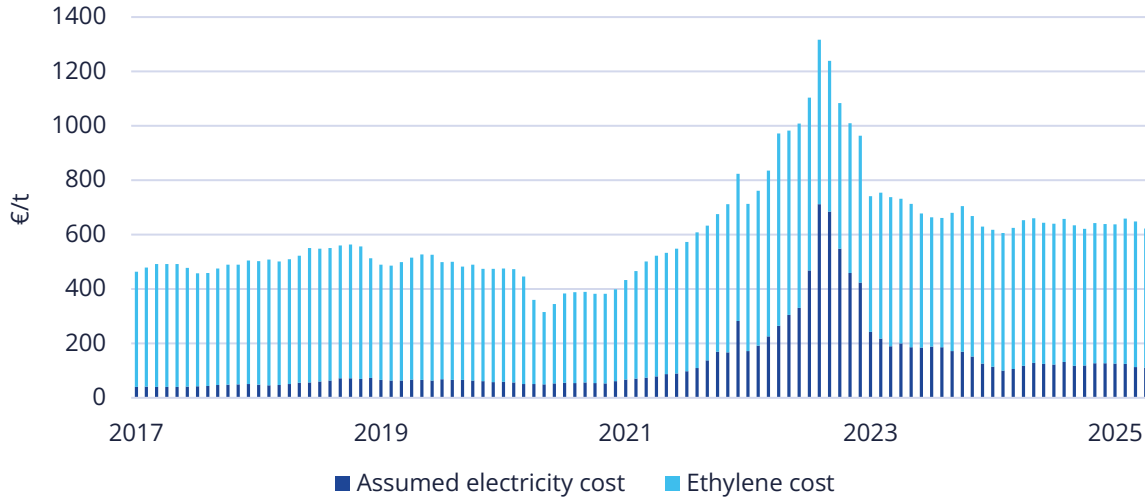
Gradual growth is expected in the long-term, with some slight hindrance from current tariffs.

### Export sales

New US s-PVC capacities, with lower production costs, raised export availability.

But this supply will need to find a new home after the implementation of import trade barriers across India, Europe, Turkey and Africa.

### NWE PVC production costs



## Feedstock costs in Europe remain high...

Higher ethylene and energy costs across Europe are now exposed.

It is and will remain difficult for Europe to export excess supply into Turkey or Africa, given cheaper, more competitive supply from elsewhere.

**Source:**  
Argus PVC and Vinyls

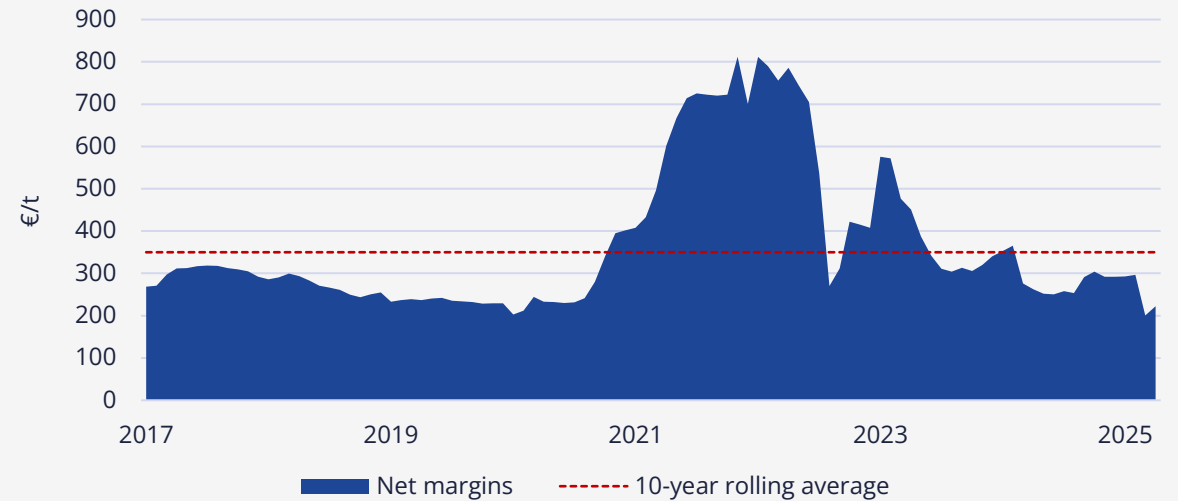
## ... and margins are unlikely to recover to pandemic levels

Non-integrated chlor-vinyl producers in Europe are likely to re-evaluate production in the short to medium-term.

But the balance will remain balanced-to-long in the medium-term, despite this.

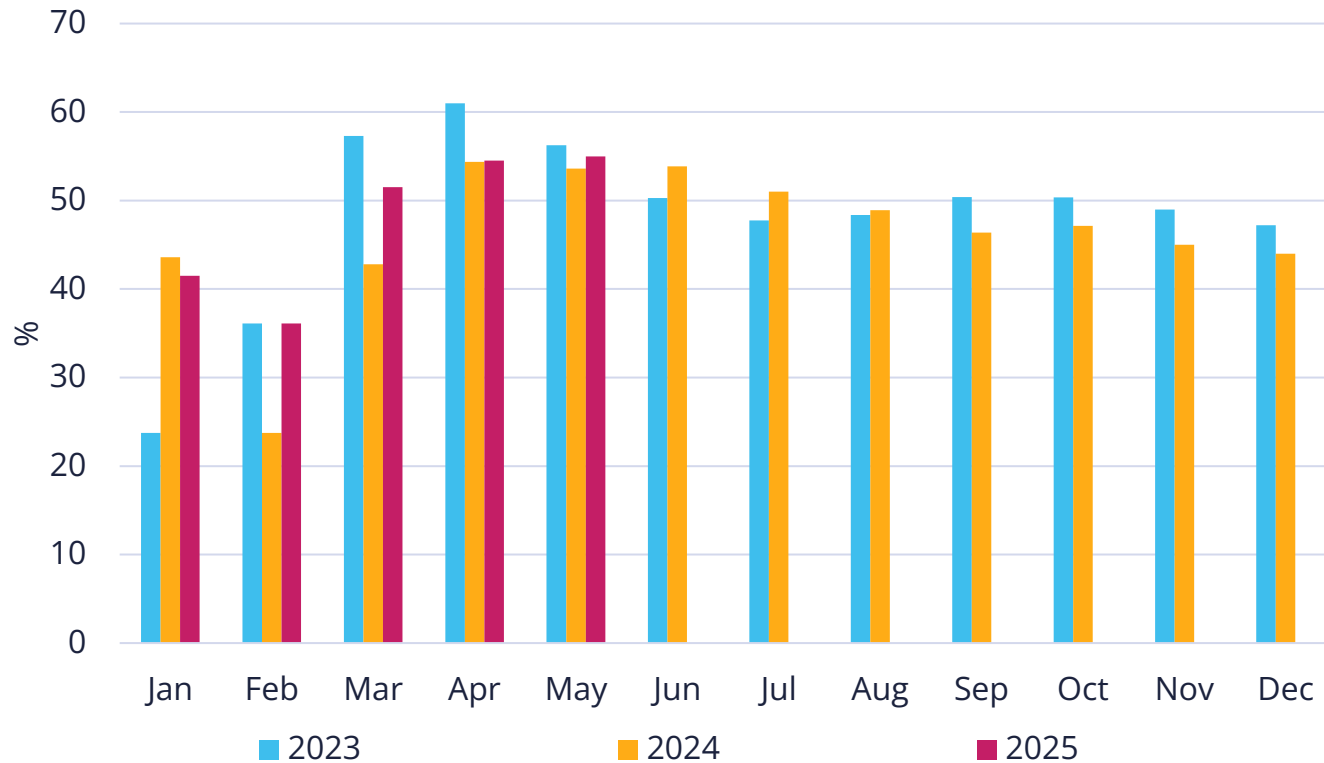
This could open the door for joint ventures, mergers and additional production consolidation across the region

### Integrated NWE s-PVC net margins



# Lower Chinese PVC prices are masking improving demand in 2025

## Chinese PVC converter operating rates



**Source:**  
Argus PVC and Vinyls

- **Carbide-based PVC:**

Quality is not widely accepted by wider global converters. This currently remains consumed in the Chinese domestic market, with some small exceptions from key south Asian buyers that manufacture pipes.

- **Ethylene-based PVC:**

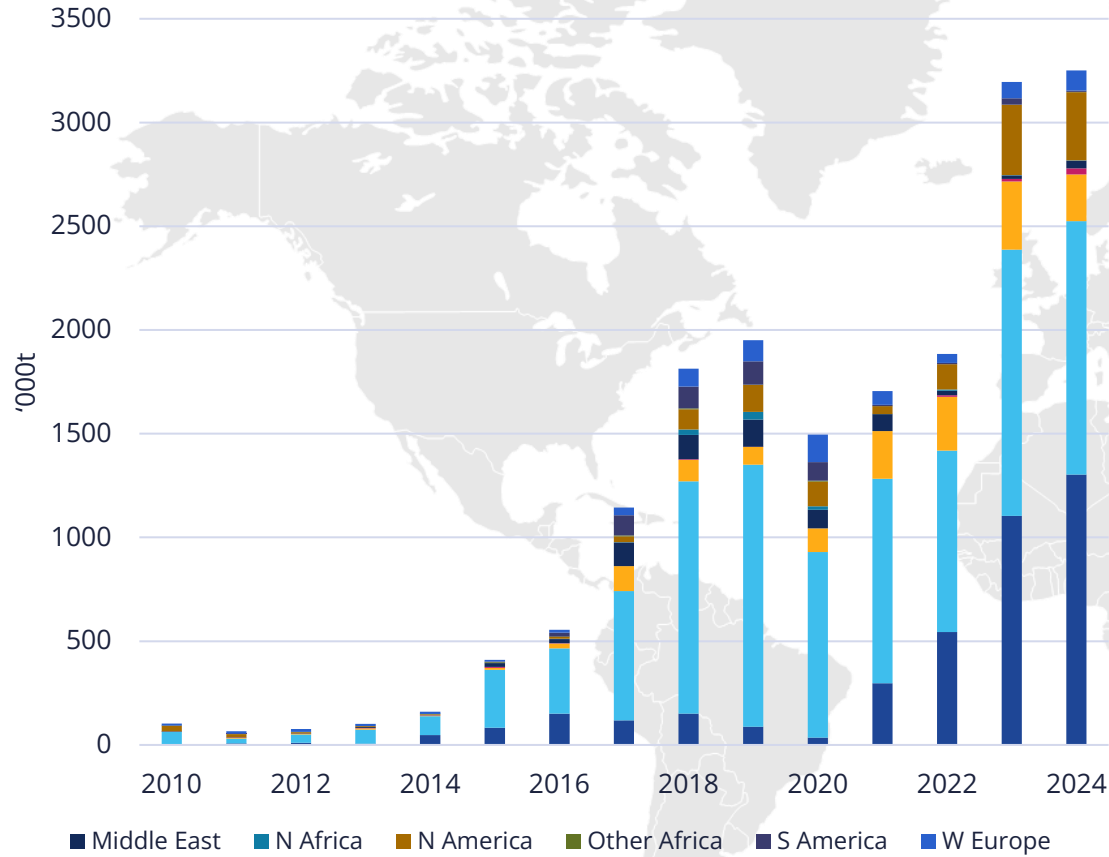
Current capacities and expansions are finding it difficult to compete against carbide-based PVC, with some turning their attention towards the export market.

- **New demand opportunities:**

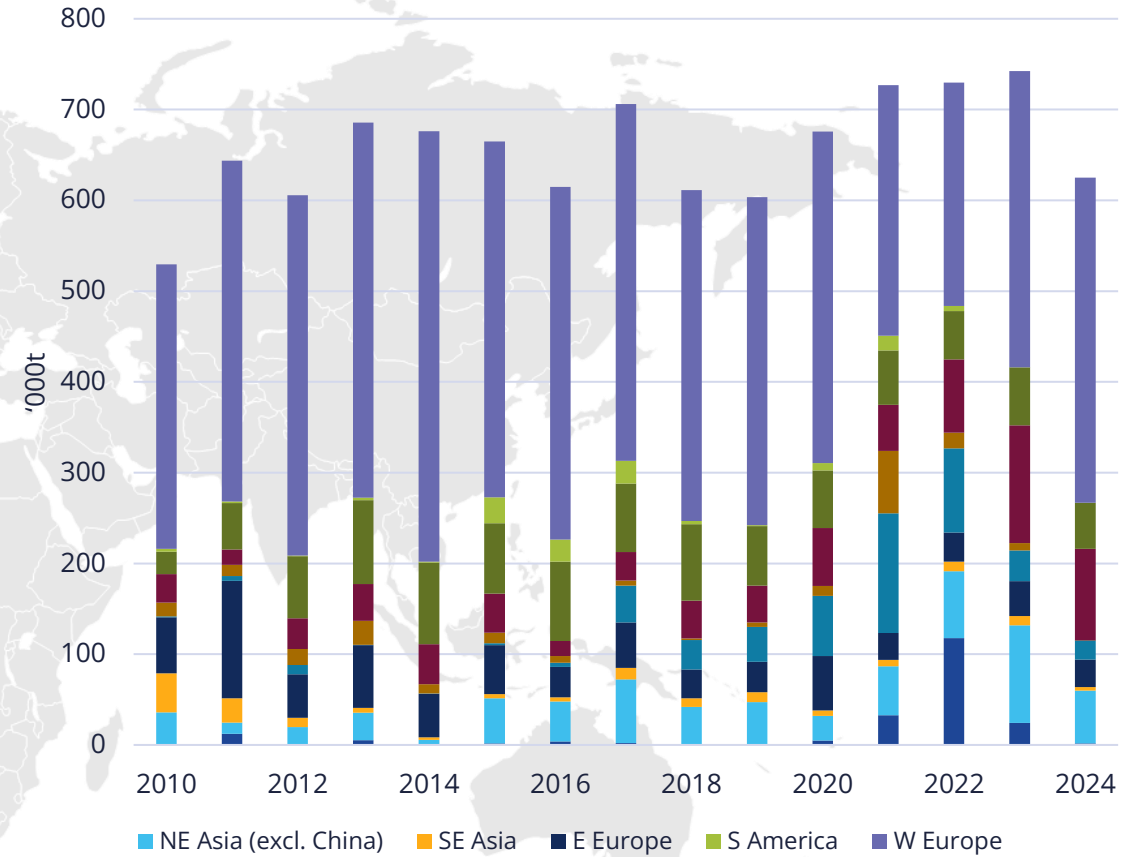
Excess supply will likely need to find a new home, such as Latin America, Africa and Europe where converters began testing certain specifications. Trade restrictions in south Asia are closing off opportunities for most Chinese PVC producers.

# Global demand hot-spots remain home to excess PVC supply ...

## India PVC imports



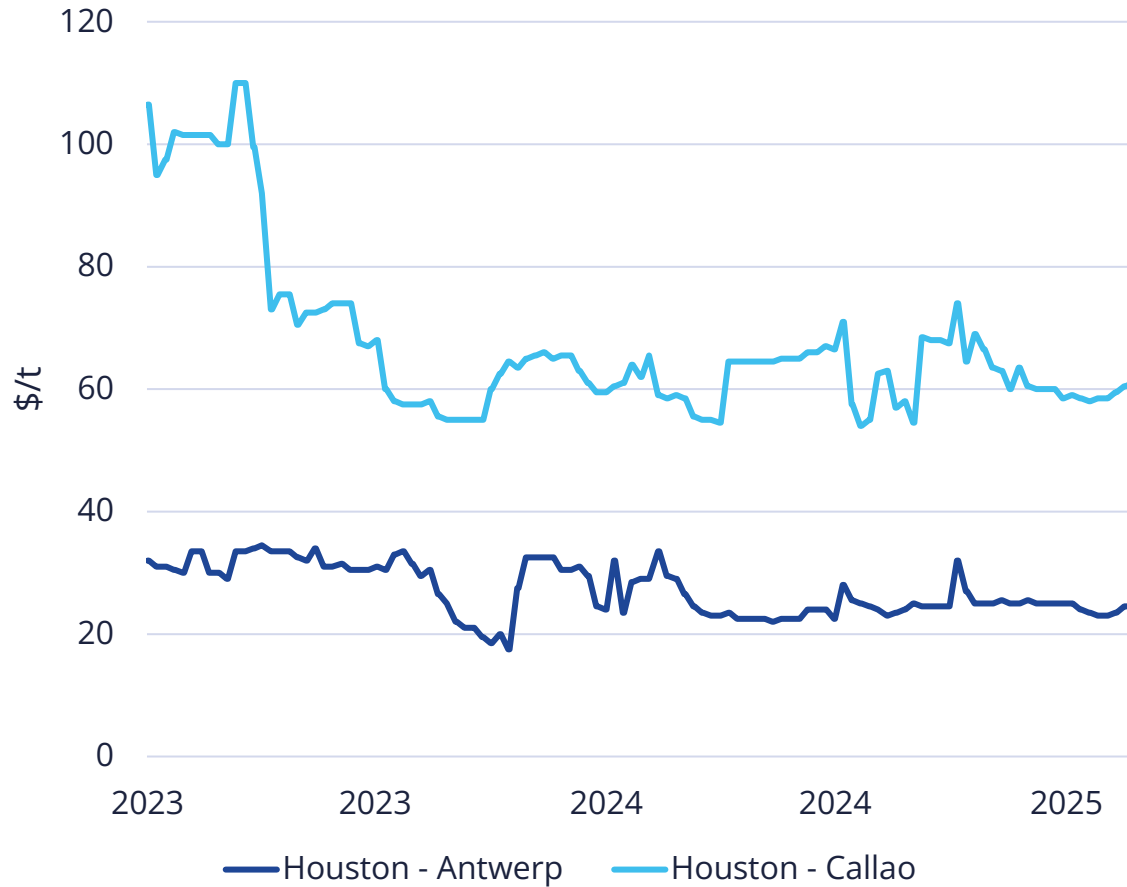
## Turkey PVC imports



**Source:**  
Global Trade Tracker, Argus PVC and Vinyls

# ... with PVC import prices currently dictated by volatility in container freight costs

### Container (40 ft) freight rates from Houston



### Container (40 ft) freight rates from Shanghai



**Source:**  
Argus PVC and Vinyls, Freightos

# PVC capacities and trade restrictions

Will the future be  
defined by supply  
tightness or length?

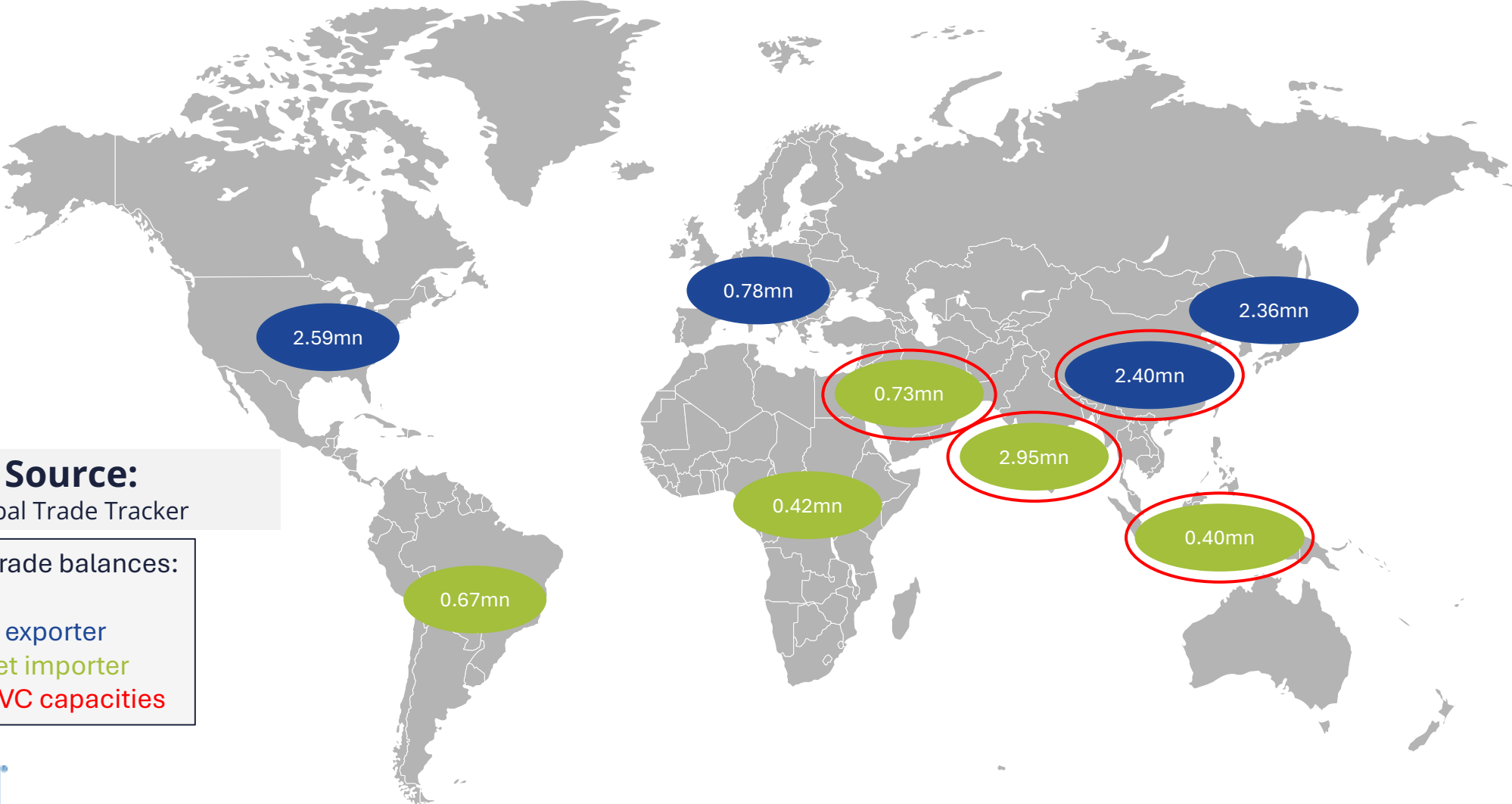


# New PVC capacities are mostly a direct consequence of excess chlorine supply

Company	Country	Grade	Capacity '000t/yr	Timeline	Notes
Westlake	US	Specialties	TBC	2026	Molecular-oriented PVC. 4 new lines.
Mexichem (Orbia)	Colombia	Various	+ 100	2025	Will import EDC.
Braskem	Brazil	Suspension	TBC	2026	Debottlenecking from Nov 2024, 18-month timeline.
Inovyn	Various in EU	Emulsion + specialties	+ 220	2027	
Qatar Energy	Qatar	Suspension	+ 350	Q3 2025	Delayed from mid 2025.
AGC Vinythai	Thailand	Suspension	+ 400	Q2 2025	Delayed from Mar 2025.
Reliance	India	Various	+ 1,500	2028-2029	1.2mn t/yr of s-PVC, 0.3mn t/yr of c-PVC. Likely delayed from 2026.
ADANI Group (phase 1)	India	Various	+ 1,000	2028-2029	Still identifying grade split. Likely delayed from 2026.
Wanhua	China	Suspension	+400	Q2 2025	Ethylene-based. Delayed from Mar 2025.
Zhejiang Satellite	China	Suspension	+ 800	Unclear	Ethylene-based.
Qingdao Haiwan	China	Suspension	+ 200	2Q 2025	Ethylene-based.
Zhejiang Jiahua	China	Suspension	+ 300	2025	Ethylene-based.
Tianjin Bohai Chemical	China	Suspension	+ 400	2H 2025	Ethylene-based. Delayed from Q2 2025.
Jiantao Beihai New Material	China	Suspension	+ 400	2026	Ethylene-based.

\*Other, speculative PVC capacity additions in India by IOC and Sanmar Group are also being contemplated.

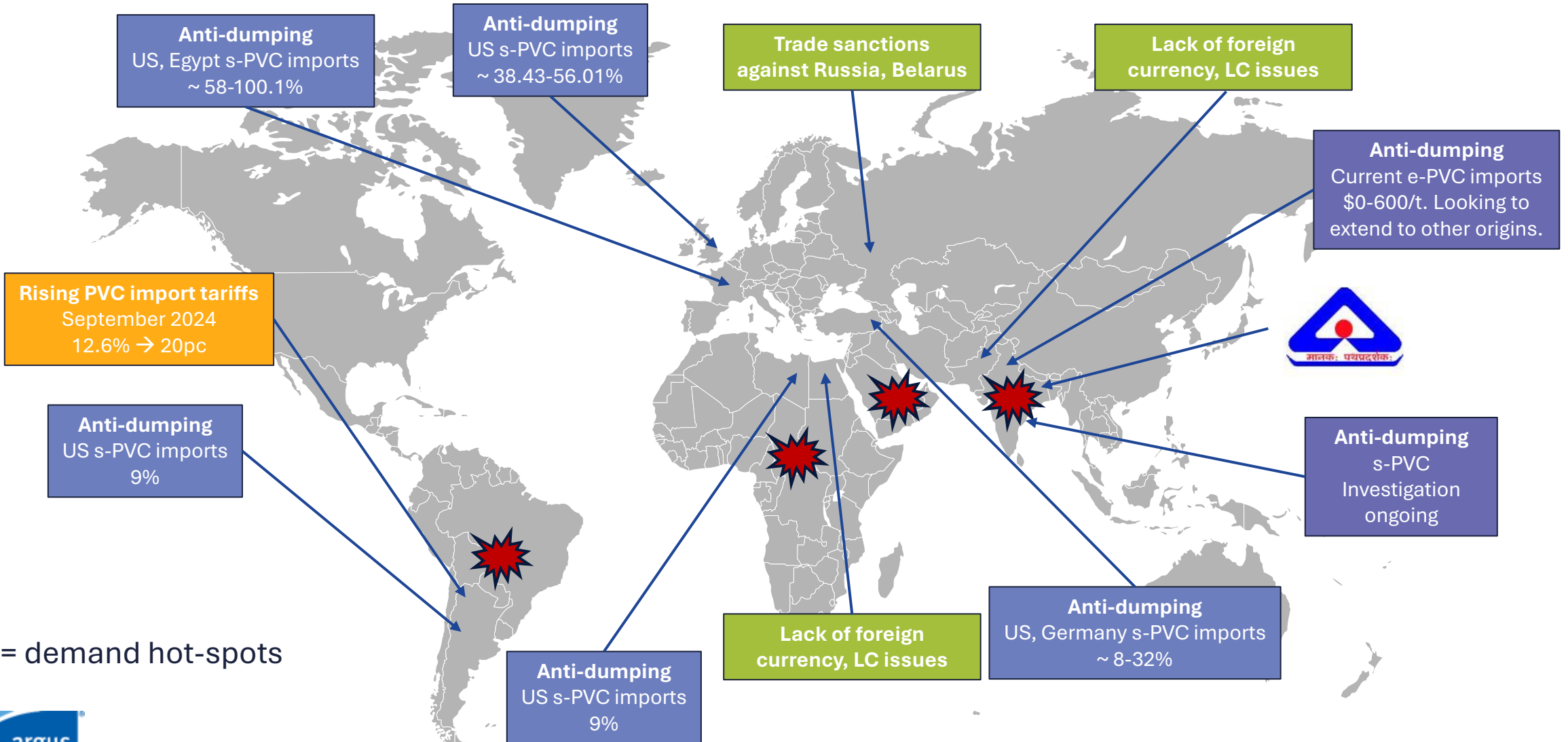
# Key PVC demand hot-spots look to minimize import pressure



**Source:**  
Global Trade Tracker

2024 net trade balances:  
Blue = net exporter  
Green = net importer  
O = new PVC capacities

# Key PVC demand hot-spots look to minimize import pressure



# Concluding thoughts



# Americas

## Feedstocks:

Region will continue to enjoy competitive feedstock advantage, despite some increases in the long-term.

## Production:

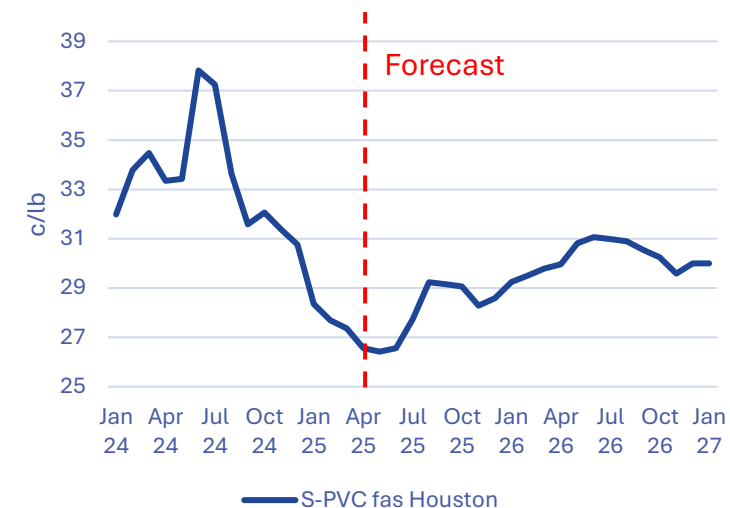
Operating rates are likely to decline because of lagging export demand (from trade barriers) and domestic demand (because of tariffs).

## Demand:

PVC production closures are more likely in south America, but US supply can easily subsidize.

## Trade:

The export market will struggle to increase in demand because of ADDs on US s-PVC in Europe and India.



**Source:**  
Argus Olefins Outlook

# Europe

## Feedstocks:

PVC cash costs are declining, but producers will struggle to remain cost-competitive at high energy and ethylene prices.

## Production:

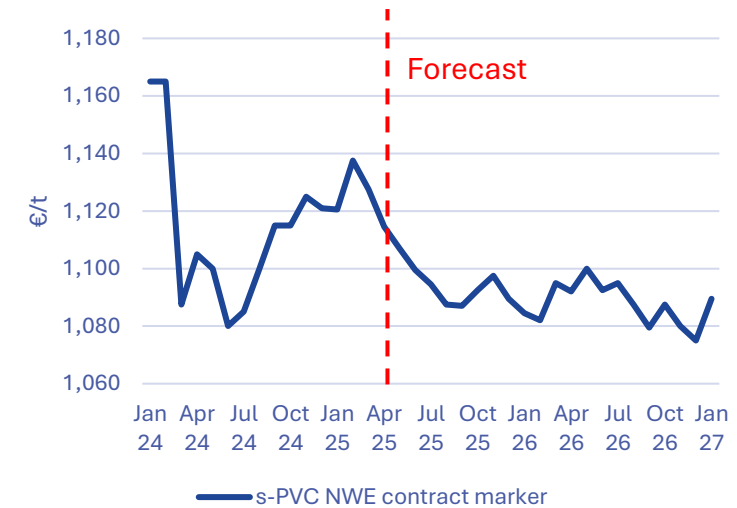
Production consolidation underway:  
Fortischem (EDC, VCM, PVC) - Petkim (VCM) - Spolana (VCM, PVC), Dow (VCM)

## Demand:

Lower domestic and export demand will persist into 2025.  
Sustainability (r-PVC) targets will remain challenging following higher energy costs.

## Trade:

Imports will remain suppressed by currently imposed ADDs, allowing EU producers to retain margins above pre-Covid levels.



**Source:**  
Argus Olefins Outlook

# Asia + ME

## Feedstocks:

Ethylene-based PVC costs in China will remain in par with the US. New capacities in the Middle East will also remain cost-competitive.

## Production:

Production rationalization remains likely among older facilities in NE Asia and carbide-based producers reliant on merchant acetylene feedstock.

## Demand:

Indian imports will stabilize ahead of upcoming trade barriers. Demand pockets in southeast Asia and the Middle East will also help to absorb supply.

## Trade:

ADDs, BIS and new Indian PVC capacities will drive consolidation of older PVC production across Asia-Pacific.



**Source:**  
Argus Olefins Outlook

# Key take-aways

- Global PVC demand will remain driven by south Asia, Latin America, Africa and the Middle East, where construction and infrastructure remains of focus.
- More developed markets such as China, US and Europe will require further government incentives to boost construction, or new consumption opportunities, to boost PVC demand. Progress will be slower here than the others.
- Production consolidation is imminent. Europe and China are viewed as potential regions where production closures could happen first. This will help to re-balance the market.
- Emerging markets such as Middle East, Latin America and India are either increasing domestic PVC capacity, or applying trade barriers to protect their markets. This will create some difficulty for current exporters to these regions, potentially supporting production consolidation elsewhere.

**Thank you for your time today.  
For any inquiries related to PVC  
and feedstock market coverage:**

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